

## The timing of family formation - a new approach: is the timing of parenthood a female decision?

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**The Timing of Family Formation – A New Approach**  
**Is the timing of parenthood a female decision?**

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## **Introduction**

Difficulties of achieving aims in career and family at the same time are considered to be an important issue for today's fertility decline. Since the 1970s career opportunities for women have become more attractive but the possibilities to combine career with existing family plans haven't been implemented sufficiently. On the other hand the time-intensive traditional idea about female family-care is widespread. For this reason, women have to decide to a stronger extent than men between their aims in family and vocational career.

Theoretical Models, like the Expected Utility Model (Leibenstein, 1975) or the Theory of Planned Behaviour (Barber, 2001) assume that the costs and benefits of the different options are compared, and individuals decide for the most favourable of them - even though it can only be done insufficiently, since the costs and benefits are very complex and imponderable. On the basis of the traditional role ideas, parenthood is interconnected with considerable disadvantages especially for women (Beck and Beck-Gernsheim, 1995). According to these theories parenthood is delayed by women because of an unfavourable opportunity structure, while men hardly influence the decision. They only have the possibility to alter the basic conditions for women.

Theories of this kind can well explain under which circumstances parenthood is postponed for the benefit of occupational aims. But it can not be deduced under which circumstances parenthood will be realised later in life nor are the costs of adjusting a salient aim included. Family formation even though the circumstances are not perfect or a postponing even though they are, can not be explained with existing theories.

We assume that the decision to postpone parenthood or to realize it, is not only a question of incentives, but is also influenced by the risk to fail with individual life-plans. But how are different life-aims and incentives joined together – and how do they influence the decision for parenthood?

In this paper, we use some developmental-psychological assumptions to present a new action theory, which gives us the “missing link” between goal-attainment and (the perception) of incentives – and of course a deeper understanding on what is going on with families.

## **Current theoretical and empirical findings**

Fertility has been declining in all developed countries for the past 20 years (Bongaarts, 1999). In Germany the total fertility rate was with 1.3 children per woman in 2005 one of the lowest in Europe. This progress is accompanied with the increase of childless women and the rise of the age at first birth. Estimations for the percentage of childless women in the birth cohorts later than 1965 are up to 30 per cent. There are several reasons discussed for this high percentage. Childlessness is observed for highly educated women and less educated men. For women it is considered to be caused of postponing family formation until it is not possible anymore or until one has become used to a life without children (Schmitt and Winkelmann, 2005). A high orientation towards the career is often mentioned for couples who don't want children at all (Schneider, 1999). Another important factor especially discussed for men is childlessness because of the lack of a partnership (Schmitt 2004; Klein 2003).

(Western-)Germany is considered to be a male-breadwinner regime. This shows in the division of labour after a child is born and it leads to the necessity of the man to ensure the financial situation before family formation. Insecurities in men's career hinder the transition to parenthood (Tölke and Diwald, 2003). Kreyenfeld and Konietzka (2005) show that for highly educated women unemployment is a hindrance as well.

While women's labour force participation is still on the rise, many women leave employment at least for a limited period when they have a child. So during this time the male partner is responsible for the family's finances (Dornseiff and Sackmann, 2003).

Current theories tell us, that achieving aims in career and family at the same time are considered to be an important cause for today's fertility decline: The direct costs of parenthood rises (Leibenstein, 1975) and career opportunities have become more attractive in the last years. Life aims in career and leisure became more relevant, while the importance of family aims and fertility declined. During education and after the career entry the financial situation is often insecure. Under these circumstances fertility postponement can be a strategy to balance the aims in work and family, unless the position in the labour market becomes more stable (Brewster and Rindfuss, 2000). But the strong relationship between low fertility-rate and rising female labour force participation in industrialized nations was only not caused by the attractive career opportunities for woman; the missing possibilities to combine career with existing family plans also have an effect (Blossfeld and Jaenichen, 1992). From the view of Becker's New Home Economics the aims in career and family are two exclusive options in women's life (Becker, 1991). In its theoretical approach the monetary costs of the decision are emphasized and with an increasing level of education a parenthood becomes more unattractive for women, and a suitable "timing" of family and career grows to be more and more important. Ott (1992) distinguishes between the individual interests within the partnership, but she also only regards the monetary aspects of the decision.

Other theories show that fertility motivation or the timing of childbearing is not only a matter of monetary incentives (or having the correct preconditions). Nauck shows that the economic theory can well be connected to the Value of Children Approach so that cultural factors can be taken into account (Nauck 2007). Not only the costs of children are included but also the benefits –values- of children are part of the model. With this model (framed in the Social Production Function of Lindenberg and Frey, 1993) differences in fertility behaviour within and across societies can be explained.

More theories show the influence of values. Applying the Model of Planned Behaviour (Ajzen, 1991) Barber (2001, 123) shows that positive attitudes toward children increase the possibility of childbearing, while positive attitudes towards career and luxury goods reduce them.

Hakim (2003) chooses an approach differentiating between the sexes. She finds a correlation between the attitudes to parenthood and career (i.e. relevance of the aims) in couples and the intention of childbearing (see also Miller et al. 2004). While women want to combine professional and family aims, men usually orientate themselves only at professional aims. Hakim assumes that an intention of childbearing only arises if the aim orientations of both partners match each other.

The high importance of family-related aims for the individual decision about parenthood is also confirmed by developmental-psychological research from Heckhausen and Wrosch (2001). They show that childless women try to have a first child particularly strongly just before the end of their fertility-phase, to prevent the perception of failure, i.e. not having a child at all.

### **A New Model of Aim - Management**

As we mentioned above, the choice between parenthood and career is not only a matter of different incentives and opportunities – also the individual life planning and the risk of failure influences the decision. Sloan (1987, 1996) points out, that one must separate between small and "big" decisions. These big "life projects" (S. 114) like family foundation or the vocational career accompany us over a long time and are carried out progressively. Structural

irreconcilableness leads to an altering of individual aims in family, career and leisure activities – or at least to pursuing these aims to achieve one after another. The crucial point therefore is which aims are advanced, and which are put back.

The New Home Economic Theory states that external effects are relevant for this decision (Becker, 1991). Households always try to maximize their welfare, and aims like parenthood or leisure activities are only relevant for the production of “basic commodities” (i.e. physical and social wellbeing), and could be replaced by other aims – if these need less resources for producing the same amount of welfare. Women have fewer chances on the labour market than their partners, so they concentrate on the child care to maximize the households’ welfare.

On the other hand, Heckhausen and Wrosch (2001) demonstrate that the relevance of different life-aims changes over the life-course – and with that also the intensity of achieving these aims is changing. According to Sloan (1996) the current relevance of an aim (its “totalization”, S. 71) decides, how the interconnected incentives are perceived. Similar to Frame-Theoretical-Models (Lindenberg and Frey, 1993) he supposes, that the outcome of an irrelevant aim will not be recognized as utility: if you are not interested in football two free tickets for a game of your national team will not make you happy – and if you are not interested in career, you will not cut back in your aims connected to parenthood if there are occupational opportunities.

From a life-course point of view we ask for the “when” rather than for the “whether or not” of parenthood or career related decisions; this is what we call the “timing” or “urgency” of parenthood. We assume that the relevance of aims and the perception of the aim-related incentives are connected. The higher the perceived incentives, the bigger the degree of resources, in which one is willing to invest. The allocation of resources depends on opportunity-cost and the expected outcome – but their perception is influenced by the individual relevance of life-aims and vice versa. The decision to invest fewer resources in an aim also depends on whether one is ready to cut ones demands down. To know, what influences, whether somebody holds on his aims or cuts back, can be helpful for a deeper understanding of life-course decisions, like parenthood.

This kind of “aim-management” during the life-course is a main topic in two models which include assumptions of developmental psychology about realising and regulating life aims as well as avoiding the experience of failure (i.e. having to cut back in ones aims). It is a central assumption that the perception of failure – losing the active control over the action results – generates high psychological costs, and therefore is tried to be avoided (Brandtstädter and Renner 1990; Heckhausen and Schulz, 1998). Both theories explain how the perception of this control is maximized by certain strategies which are applied, and some of these assumptions can be used also in a choice-theoretic model: Brandtstädter and Renner (1990) distinguish between assimilation and accommodation, two strategies that influence the perception of the welfare connected to different opportunities and also influences the willingness to cut back in an aim. Using the strategy of assimilation additional resources are invested to accomplish a goal. If no additional resources are available, the aims are reduced using the strategy of accommodation (less time for example is invested in the professional career). Doing this one is able to reach the aim without the experience of failure. We assume that both processes can complement themselves. To realize parenthood successfully, the professional aims can be reduced. In view of scarce resources we assume that the realization of the different aims is connected to each other. People can reduce their aspiration in family and career or in one of the two aims to manage the limited resources.

But when does one reduce ones claims and when does one adhere to them? Firstly we can expect that one is more ready to reduce ones claims to aims, which are unimportant in the current life-plan. Secondly, Brandtstädter and Renner (1990) assume that tenaciousness (and also flexibility) connected to the aims, and the beliefs of the social network play an important role for the decision between parenthood and career.

Starting out from these assumptions, parenthood becomes only an alternative (or an addition) to the career, if the relevance of it is high. Furthermore parenthood has to be pursued obstinately, or one must be flexible towards professional aims. The following diagram shows, how the aims are connected if both family and career are highly relevant:

Table 1: The effects of tenaciousness and flexibility on the aim realization

<b>Parenthood</b>	<b>Career</b>		
		<b>Tenacious</b>	<b>flexible</b>
	<b>tenacious</b>	No accommodation, high risk of a failure	Cutting back in career, realization of the aims in parenthood
	<b>flexible</b>	Cutting back in parenthood, realization of the occupational aims	Realization of both aims on a lower level of aspiration

The diagram points out, that a high relevance of parenthood and a tenacious orientation doesn't "automatically" result in childbearing. It is important at the same time to be flexible in other time-consuming aims, like the career. Childbearing is also probable if one is flexible in both areas.

With our Model of Aim – Management we present a theoretical model of action, which uses this research of developmental psychology, and which therefore allows making statements about the adjusting of life aims and their effects on decision making by the degree of the tenaciousness of parenthood. Besides of the aim related positive and negative incentives, and the perception of self-control – we will call these aspects "readiness for parenthood"<sup>1</sup> – it contains also the willingness to cut back in career, the actual relevance of these aims, and the tenaciousness regarding the realization of an aim<sup>2</sup>:

- The timing (urgency) of parenthood is not only caused by the "readiness for parenthood" but also by the willingness to cut back in other life aims (i.e. career)<sup>3</sup>.
- The more tenacious someone is about parenthood,
  - the higher is the willingness to cut back in the career (if both plans can not be realized together)
  - the higher is the perception of the readiness for parenthood (if both plans can not be realized together)
- The more salient parenthood is (compared to other life aims),
  - the stronger is the willingness to cut back in career plans
  - the stronger is the effect of the readiness on the urgency of parenthood

<sup>1</sup> See below for a more detailed description

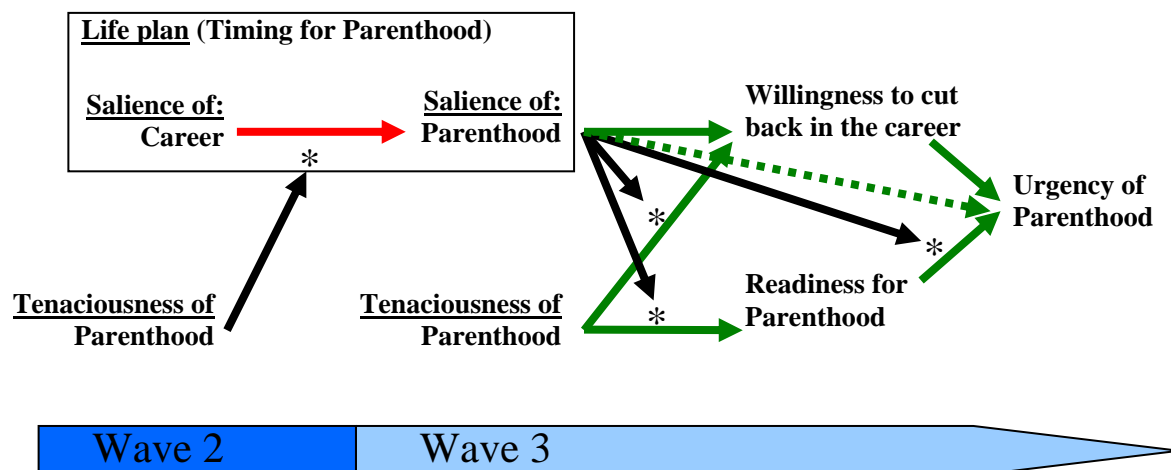
<sup>2</sup> The effects of flexibility and immunization (also treated by Brandtstädter and Renner 1990) have not been taken into account.

<sup>3</sup> The model can be used for all time-consuming life aims. We concentrate here on career related aims, leisure activities would be another example.

- the stronger is the effect of tenaciousness on the readiness and on the willingness to cut back in the career
- There are time effects over the panel-waves:
  - the higher the salience of the career in wave 2 the lower is the salience of parenthood in wave 3
  - the higher the tenaciousness of parenthood in wave 2 the weaker is the effect of the salience of the career on the salience of parenthood

Our theory states that the timing of parenthood is only problematic when one must cut back in career related aims. This is only the case for working women who are (mostly) the ones obliged to take care of the child after the birth. Therefore we presume that the relations, described above, only show for women.

Table 2: The Model of Aim-Management



Existing models can well explain under which circumstances parenthood is postponed for the benefit of occupational aims. The advantage of the Model of Aim-Management is that we can deduce under which circumstances parenthood will finally be realised or even put forward before concentrating on career connected aims. The external opportunity structure can influence the decision progress differently according to the salience of a certain aim and it is also influenced by the internal structure of a person, i.e. the tenaciousness. The model is able to take all this into account.

### **Dataset and Variables**

To test our hypotheses we use the dataset of the Mini-Panel. The Mini-Panel is a pretest for a planned nation-wide panel in Germany. The development of the panel currently takes place in the priority programme 1161 "Panel Analysis of Intimate Relationships and Family Dynamics" of the German Research Foundation (DFG). The aim of the Mini-Panel was to test newly developed instruments to measure intimate relationships and family decisions.

The Mini-Panel consists of three waves the time between the waves was half a year. It took place in autumn 2005, spring 2006 and autumn 2006 in the four German towns Munich, Mannheim, Chemnitz and Bremen. The panel follows a cohort design addressing three

cohorts aged at the first interview 15-17, 25-27 and 35-37 years. There were 660 participants in the first wave. The number reduces to 427 in the third wave.

Since we are using a pretest there are some obstacles in the dataset.

There is a very short time between the panel-waves which makes longitudinal research difficult. Furthermore the dataset is not representative for the whole of Germany since we only ask in four towns. Because of this design we have a bias of urban population. There is no rural population included. This can have an effect on the answers. We also have a bias of education. There is a higher level of education in towns, especially in university towns like we used them.

The case numbers are relatively low, especially since we only use childless persons for our calculations. This leaves low numbers for the oldest cohort and a relatively high number of persons who don't want children at all in this age group (selection effect).

For our research questions it is sometimes necessary to skip the youth cohort because for them there is hardly any variance for parenthood related questions.

Still we can use this dataset to test our hypotheses and check them with the data of the main panel which is to come in 2008.

The dependent variable in the regression model is the urgency of parenthood. We asked the respondents about the urgency of family formation among others like this: "*There are things in life you can't always postpone. Do you have to attend to the following things now or do they still have time?*". For the youngest cohort family formation is not urgent at all the mean is 0.02<sup>4</sup>, a little more it is for the middle cohort (mean 0.15) but for the oldest cohort it becomes urgent (mean 0.42). These cohort effects are highly significant. We also asked for the urgency to attend to aims connected to career or education. This is on the other side very urgent for all cohorts (mean ca. 0.8 for all cohorts).

Willingness to cut back in Career: Here we ask how much people are willing to cutback in their career-related aims for parenthood. The scale reaches from 1 = *very much* to 5 = *not at all*.

"Readiness for Parenthood" (Incentives and self-control): Instead of single incentives we use a summarizing scale, which contains nine cost-intensive requirements for parenthood, and ask for each, how important it is, and whether the person already achieved it. The variable measures how many per cent of the preconditions considered to be important are achieved. The requirements are: finances, a secure job, feeling ready, a stable partnership, reconcilability with the career, reconcilability with leisure interests, reconcilability with other plans, agreement with partner about the division of labour and the availability of child care.

Tenaciousness of Parenthood: We use the agreement with two items for the construction: "I can't be dissuaded from my plans connected to parenthood" and "I am very tenacious in achieving my plans" for the third wave. We measure it in a five-point-scale. All formulations in the instrument are close to an instrument about "Tenaciousness and Flexibility" (TENFLEX) which was suggested by Brandtstädter. In the second wave we use an instrument suggested by Heckhausen about different strategies of handling with aims (OPS) "If I want a child and face obstacles, I still won't be discouraged".

Salience of Parenthood: Here respondents are asked to divide twelve coins to five life aims (parenthood, career, friends, hobbies and partnership) according to the importance of these aims to them at the moment. The more coins the higher is the salience of an aim. We use the percentage of the coins given to parenthood to measure the salience of parenthood.

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<sup>4</sup> The scale ranges from 0 = *still has time* to 1 = *attend to now*.



## Empirical Results

To test our assumptions we use in a first step a regression model with the urgency of parenthood as dependent variable. We estimate the effects of the willingness to cut back in career for parenthood and the readiness for parenthood on the urgency first for all childless respondents and then separately for men and women.

The respondents of the Mini-Panel consist of three cohorts. As described above the youngest cohort shows no variance in their urgency of parenthood since for most of them it is not urgent at all. We therefore don't include them in our model. It then only concludes of the two cohorts aged 25-27 and 35-37 years. Since we refer to family formation there are only childless persons included.

Table 3: Results of OLS-Regression Model

Variables	Model 1 all	Model 2 only women	Model 3 only men
Willingness to cut back in career	,34***	,34**	,22
Readiness for parenthood	,47***	,58***	-,19
Global fit (n)	R <sup>2</sup> = ,45*** N = 87	R <sup>2</sup> = ,61*** N = 47	R <sup>2</sup> = 10 N = 40

Source: Mini-Panel wave 3, own calculations, without youth cohort, \*\* =  $p < 0.01$ ; \*\*\* =  $p < 0.001$

The table above shows the effects of the “willingness to cut back in the career” and the “readiness for parenthood” on the urgency of parenthood.

In the first model we included men and women and we see our predictions about the positive effects of both independent variables verified. So besides the readiness for parenthood the willingness to cut back in another life aim -the career- has a strong effect on the perceived urgency of parenthood.

We argued that the problems to reconcile family and career and therefore the need to cut back in one of the aims are still especially true for women. Many couples use the traditional way to divide household and family labour after a child is born. We see this in the next two models. The effects are stronger in model 2, including only women, and the global fit rises up to  $R^2 = ,61$ . So the two variables can explain the urgency perceived by women very well.

But there are no significant effects for men. Regarding the traditional division of labour the non-existing effect of the willingness to cut back in the career is understandable. Men don't think that they will have to cut back because it is their partner who will. But even the aspects of the readiness for parenthood are not relevant for men. The indicator of the readiness includes the fulfilment of several preconditions that are considered to be important for men (compatibility with other aims or financial preconditions) but still this has no effect on their perceived urgency of parenthood.

A question that still has to be answered is what influences the timing decision for men. Is it only the timing decision of the female partner? It is possible that within the partnership the timing of parenthood is planned according to the best timing for the woman. So is the decision for the timing of parenthood female?

Finally we take a closer look on our assumptions about interactive influences from the salience of parenthood to the effects of other variables in our model. Since we saw our assumptions about the variables are only valid for women we don't include men here. We assume there are interaction effects of the salience of parenthood and of the tenaciousness about parenthood on other effects in our model. To check the hypotheses we use multiple analyses of variance and point out the F-Values and the significance of all main and interactive effects (see table 4).

Table 4: Interaction-Effects

<b>Interactions between ...</b>	<b>With Effect on...</b>	<b>Results (Anova): Main and Interaction-Effects (F / Sig.)</b>
<b>1) Salience of Parenthood 2) Readiness</b>	<b>Urgency of Parenthood</b>	Main 1) 15,6 / ,000 Main 2) 5,6 / ,003 Interaction: 3,7 / ,019      N = 41
<b>1) Salience of Parenthood 2) Tenaciousness</b>	<b>Willingness to cut back in career</b>	Main 1) 5,1 / ,028 Main 2) 0,5 / ,620 Interaction: 2,8 / ,052      N = 53
<b>1) Salience of Parenthood 2) Tenaciousness</b>	<b>Readiness for Parenthood</b>	Main 1) 5,9 / ,005 Main 2) 3,2 / ,049 Interaction: 1,4 / ,272      N = 61
<b>1) Salience of Career (Wave 2) 2) Tenaciousness (Wave 2)</b>	<b>Salience of Parenthood (Wave 3)</b>	Main 1) 3,5 / ,044 Main 2) 0,6 / ,526 Interaction: 2,5 / ,042      N = 40

Source: Mini-Panel wave 2 and 3, own calculations, only women of the second and third cohort

First we assume that the effect of the readiness for parenthood on the urgency will rise with the salience of parenthood. The salience weights the perception of the incentives of an aim, so the more salient an aim is the stronger the readiness for parenthood are perceived. Besides of the two significant main-effects of both variables on the urgency of parenthood also the interaction effect is significant.

We also predicted that the salience of parenthood has an influence on the effect of the tenaciousness, on the willingness to cut back and on the readiness. To avoid perceptions of failure, people have to decide for which aim they reduce their aspirations and cutback and for which aim they "overestimate" the incentives to increase the outcome of their decision. The tenaciousness about parenthood has in itself no significant effect on the willingness to cut back in the career in favour of parenthood. But the interaction effect of the salience and the tenaciousness together is significant. This means the more salient parenthood and the higher the tenaciousness about parenthood the higher is the willingness to cut back in the career. If the aim is not salient the tenaciousness plays no role. There is no need to cut back for an aim that is not important at the moment, i.e. not salient.

Contrary to what we assumed we don't have a significant interaction between the salience and the tenaciousness on the increase of the readiness for parenthood. There are only independent effects of both variables on the readiness. The higher the salience the higher is the perceived readiness for parenthood and furthermore the more tenacious a woman is about parenthood the higher is the readiness as well.

The panel-data of the Mini-Panel allows us to make estimations over time. Event though there is only half a year between wave 2 and 3 we can find time-effects. We believed that a high degree of tenaciousness considering parenthood over the time prevents a decline in the salience of parenthood, when the salience of career increases. The results confirm the assumption about the effects between the waves.

### **Conclusions:**

We hypothesised that the perception of the urgency of parenthood doesn't only depend on the costs and benefits of the parenthood alone but also on the willingness to cut back in other time-consuming life aims. With the problem of the irreconcilableness of family and career in Germany and the still relatively strong traditional female role as carer the necessity to cut back in the career is highly perceived by women. We saw in our regression models that both – readiness and the willingness to cut back – have strong effects for women.

We also used research of developmental psychology and found interesting interactions of the salience of parenthood and the tenaciousness of the person towards parenthood. The effect of the readiness on the urgency of parenthood for example is the stronger the higher the salience of parenthood. If parenthood is not salient the fulfilled preconditions are less important.

What is still open is the timing-decision for men. We didn't find effects of our independent variables on their urgency of parenthood. Do men consider parenthood to be urgent at all? Don't they experience an interconnection between parenthood and other life aims? Does their timing depend only on the suitability for their partner? To face these research questions further research on men and with regards to both partners is needed.

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